State of Arizona
Department of Education
2008 Educational Technology Standard
DRAFT

Educational Technology Standard Articulated by Grade Level

Level

Strand 1: Creativity and Innovation

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 1: Creativity and Innovation

Concept 1: Knowledge and Ideas
Using knowledge and ideas to explore and experiment.

Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
	PO 1. Experiment, explore and try out new ideas without fear of failure to generate original ideas, products or projects.	PO 1. Experiment, explore and try out new ideas without fear of failure to generate original ideas, products or projects.	PO 1. Experiment, explore and try out new ideas without fear of failure to generate original ideas, products or projects.	PO 1. Experiment, explore and try out new ideas without fear of failure to generate original ideas, products or projects.	PO 1. Experiment, explore and try out new ideas without fear of failure to generate original ideas, products or projects.	PO 1. Experiment, explore and try out new ideas without fear of failure to generate original ideas, products or projects.

Concept 2: Digital Models and Simulations
Using digital models and simulations in situations.

Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
	PO 1. Identify and describe how aspects of a situation cause specific consequences over time using a digital model or simulation.	PO 1. Identify and describe how aspects of a situation cause specific consequences over time using a digital model or simulation.	PO 1. Identify and describe how aspects of a situation cause specific consequences over time using a digital model or simulation.	PO 1. Identify and describe how aspects of a situation cause specific consequences over time using a digital model or simulation.	PO 1. Identify and describe how aspects of a situation cause specific consequences over time using a digital model or simulation.	PO 1. Identify and describe how aspects of a situation cause specific consequences over time using a digital model or simulation.
.	PO 2. Recognize and explain relevant interdependent elements of a digital model or simulation.	PO 2. Recognize and explain relevant interdependent elements of a digital model or simulation.	PO 2. Recognize and explain relevant interdependent elements of a digital model or simulation.	PO 2. Recognize and explain relevant interdependent elements of a digital model or simulation.	PO 2. Recognize and explain relevant interdependent elements of a digital model or simulation.	PO 2. Recognize and explain relevant interdependent elements of a digital model or simulation.
	PO 3. Transfer understanding of "the big picture" of how one system operates by comparing it to another system of a different type that operates in a similar manner using a digital model or simulation.	PO 3. Transfer understanding of "the big picture" of how one system operates by comparing it to another system of a different type that operates in a similar manner using a digital model or simulation.	PO 3. Transfer understanding of "the big picture" of how one system operates by comparing it to another system of a different type that operates in a similar manner using a digital model or simulation.	PO 3. Transfer understanding of "the big picture" of how one system operates by comparing it to another system of a different type that operates in a similar manner using a digital model or simulation.	PO 3. Transfer understanding of "the big picture" of how one system operates by comparing it to another system of a different type that operates in a similar manner using a digital model or simulation.	PO 3. Transfer understanding of "the big picture" of how one system operates by comparing it to another system of a different type that operates in a similar manner using a digital model or simulation.

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 1: Creativity and Innovation

Concept 3: Trends and Possibilities						
Using Information to forecast trends and possibilities.						
Kindergarten	**Grade 1**	**Grade 2**	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**
PO 1. Identify patterns, trends and forecast possibilities.	PO 1. Identify patterns, trends and forecast possibilities.	PO 1. Identify patterns, trends and forecast possibilities.	PO 1. Identify patterns, trends and forecast possibilities.	PO 1. Identify patterns, trends and forecast possibilities.	PO 1. Identify patterns, trends and forecast possibilities.	PO 1. Identify patterns, trends and forecast possibilities.
	PO 2. Ask questions and scrutinize a problem from different perspectives and formulate inferences from known facts.	PO 2. Ask questions and scrutinize a problem from different perspectives and formulate inferences from known facts.	PO 2. Ask questions and scrutinize a problem from different perspectives and formulate inferences from known facts.	PO 2. Ask questions and scrutinize a problem from different perspectives and formulate inferences from known facts.	PO 2. Ask questions and scrutinize a problem from different perspectives and formulate inferences from known facts.	PO 2. Ask questions and scrutinize a problem from different perspectives and formulate inferences from known facts.
	PO 3. Use reasoning to draw conclusions that reflect clear and logical links between the trends and patterns and the interpretations made from them.	PO 3. Use reasoning to draw conclusions that reflect clear and logical links between the trends and patterns and the interpretations made from them.	PO 3. Use reasoning to draw conclusions that reflect clear and logical links between the trends and patterns and the interpretations made from them.	PO 3. Use reasoning to draw conclusions that reflect clear and logical links between the trends and patterns and the interpretations made from them.	PO 3. Use reasoning to draw conclusions that reflect clear and logical links between the trends and patterns and the interpretations made from them.	PO 3. Use reasoning to draw conclusions that reflect clear and logical links between the trends and patterns and the interpretations made from them.
	PO 4. Identify a general or abstract pattern that provides novel insights into the information.	PO 4. Identify a general or abstract pattern that provides novel insights into the information.	PO 4. Identify a general or abstract pattern that provides novel insights into the information.	PO 4. Identify a general or abstract pattern that provides novel insights into the information.	PO 4. Identify a general or abstract pattern that provides novel insights into the information.	PO 4. Identify a general or abstract pattern that provides novel insights into the information.

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 1: Creativity and Innovation

			Concept 4: Original Works			
			Creating original works in innovative ways.			
Kindergarten	**Grade 1**	**Grade 2**	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**
	PO 1. Use digital tools in a creative or innovative style to personally express original ideas, products, or projects.	PO 1. Use digital tools in a creative or innovative style to personally express original ideas, products, or projects.	PO 1. Use digital tools in a creative or innovative style to personally express original ideas, products, or projects.	PO 1. Use digital tools in a creative or innovative style to personally express original ideas, products, or projects.	PO 1. Use digital tools in a creative or innovative style to personally express original ideas, products, or projects.	PO 1. Use digital tools in a creative or innovative style to personally express original ideas, products, or projects.
	PO 2. Use digital tools to collaborate with a group to communicate original ideas, products, or projects effectively to an audience in a creative or innovative style.	PO 2. Use digital tools to collaborate with a group to communicate original ideas, products, or projects effectively to an audience in a creative or innovative style.	PO 2. Use digital tools to collaborate with a group to communicate original ideas, products, or projects effectively to an audience in a creative or innovative style.	PO 2. Use digital tools to collaborate with a group to communicate original ideas, products, or projects effectively to an audience in a creative or innovative style.	PO 2. Use digital tools to collaborate with a group to communicate original ideas, products, or projects effectively to an audience in a creative or innovative style.	PO 2. Use digital tools to collaborate with a group to communicate original ideas, products, or projects effectively to an audience in a creative or innovative style.

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 1: Creativity and Innovation

Concept 1: Knowledge and Ideas
Using knowledge and ideas to explore and experiment.

Grade 7	Grade 8	High School
PO 1. Experiment, explore and try out new ideas without fear of failure to generate original ideas, products or projects.	PO 1. Experiment, explore and try out new ideas without fear of failure to generate original ideas, products or projects.	PO 1. Experiment, explore and try out new ideas without fear of failure to generate original ideas, products or projects.

Concept 2: Digital Models and Simulations
Using digital models and simulations in situations.

Grade 7	Grade 8	High School
PO 1. Identify and describe how aspects of a situation cause specific consequences over time using a digital model or simulation.	PO 1. Identify and describe how aspects of a situation cause specific consequences over time using a digital model or simulation.	PO 1. Identify and describe how aspects of a situation cause specific consequences over time using a digital model or simulation.
PO 2. Recognize and explain relevant interdependent elements of a digital model or simulation.	PO 2. Recognize and explain relevant interdependent elements of a digital model or simulation.	PO 2. Recognize and explain relevant interdependent elements of a digital model or simulation.
PO 3. Transfer understanding of "the big picture" of how one system operates by comparing it to another system of a different type that operates in a similar manner using a digital.	PO 3. Transfer understanding of "the big picture" of how one system operates by comparing it to another system of a different type that operates in a similar manner using a digital.	PO 3. Transfer understanding of "the big picture" of how one system operates by comparing it to another system of a different type that operates in a similar manner using a digital.

Concept 3: Trends and Possibilities
Using information to forecast trends and possibilities.

Grade 7	Grade 8	High School
PO 1. Identify patterns, trends and forecast possibilities.	PO 1. Identify patterns, trends and forecast possibilities.	PO 1. Identify patterns, trends and forecast possibilities.
PO 2. Ask questions and scrutinize a problem from different perspectives and formulate inferences from known facts.	PO 2. Ask questions and scrutinize a problem from different perspectives and formulate inferences from known facts.	PO 2. Ask questions and scrutinize a problem from different perspectives and formulate inferences from known facts.
PO 3. Use reasoning to draw conclusions that reflect clear and logical links between the trends and patterns and the interpretations made from them.	PO 3. Use reasoning to draw conclusions that reflect clear and logical links between the trends and patterns and the interpretations made from them.	PO 3. Use reasoning to draw conclusions that reflect clear and logical links between the trends and patterns and the interpretations made from them.
PO 4. Identify a general or abstract pattern that provides novel insights into the information.	PO 4. Identify a general or abstract pattern that provides novel insights into the information.	PO 4. Identify a general or abstract pattern that provides novel insights into the information.

Concept 4: Original Works Creating original works in innovative ways.		
Grade 7	**Grade 8**	**High School**
PO 1. Use digital tools in a creative or innovative style to personally express original ideas, products, or projects.	PO 1. Use digital tools in a creative or innovative style to personally express original ideas, products, or projects.	PO 1. Use digital tools in a creative or innovative style to personally express original ideas, products, or projects.
PO 2. Use digital tools to collaborate with a group to communicate original ideas, products, or projects effectively to an audience in a creative or innovative style.	PO 2. Use digital tools to collaborate with a group to communicate original ideas, products, or projects effectively to an audience in a creative or innovative style.	PO 2. Use digital tools to collaborate with a group to communicate original ideas, products, or projects effectively to an audience in a creative or innovative style.

Educational Technology Standard Articulated by Grade Level

Strand 2: Communication and Collaboration

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 2: Communication and Collaboration

Concept 1: Digital Interactions						
Interact and collaborate with peers, experts, or others from around the world, employing a variety of digital environments and media.						
Kindergarten	**Grade 1**	**Grade 2**	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**
PO 1. Identify different communication tools. (e.g., mail, phone, email, discussions, message boards, chats)	PO 1. Engage in communication with others as a whole class through teacher identified digital tools.	PO 1. Engage in communication with others as a whole class or small groups through teacher identified digital tools.	PO 1. Select and use appropriate communication tools using a variety of teacher identified digital tools. (e.g., e-mail, podcast, forums, discussion boards)	PO 1. Select and use appropriate communication tools with teacher guidance to effectively interact with others. (e.g., e-mail, discussion message boards, wikis)	PO 1. Select and use appropriate communication tools with teacher guidance or peer input to effectively interact with others. (e.g., wikis, discussion message boards, e-mail)	PO 1. Select and use appropriate communication tools with teacher guidance or peer input to effectively interact with others. (e.g., e-mail, wikis, discussion message boards)

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 2: Communication and Collaboration

Concept 2: Effective Communications Communicate information and ideas effectively to multiple audiences using a variety of digital environments.						
Kindergarten	**Grade 1**	**Grade 2**	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**
PO 1. Identify and compare different digital environments for appropriate audiences. (e.g., TV, computer, phone, email)	PO 1. Identify, compare and demonstrate safe and appropriate behavior when using digital environments.	PO 1. Identify, compare and demonstrate safe and appropriate behavior when using digital environments.	PO 1. Identify, compare and demonstrate safe and appropriate behavior when using digital environments.	PO 1. Explain and demonstrate the safety and etiquette of digital environments to communicate with intended audiences.	PO 1. Explain and demonstrate the safety and etiquette of digital environments to communicate with intended audiences.	PO 1. Select and utilize the appropriate digital environment to communicate with intended audience for specified purposes. (e.g., digitally communicate with *authors*, text message to connected classroom, create digital sites, search Internet)
PO 2. Illustrate and communicate ideas and stories using digital tools with teacher guidance.	PO 2. Compose, illustrate and communicate original ideas and stories using digital tools.	PO 2. Compose, illustrate and communicate original ideas or research using digital tools.	PO 2. Compose, illustrate and communicate original ideas or research using digital tools.	PO 2. Create products using digital media and processes appropriate to assigned purpose and intended audience using original ideas or research.	PO 2. Create products using digital media and processes appropriate to assigned purpose and intended audience using original ideas or research.	PO 2. Create products using digital media and processes appropriate to assigned purpose and intended audience using original ideas or research. (e.g., Publisher, PowerPoint, Keynotes, Voice Thread, Podcast, Movie Maker, iMovie, Photo Story)

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 2: Communication and Collaboration

Concept 3: Digital Solutions						
Cultural understanding and global awareness by engaging with learners of other cultures.						
Kindergarten	**Grade 1**	**Grade 2**	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**
PO 1. Participate in classroom learning project using digital collaborative resources.	PO 1. Participate in classroom learning project using digital collaborative resources.	PO 1. Identify and use cooperative group rules to contribute effectively in collaborative learning project in classroom learning using digital collaborative resources. (e.g., using response pads to gather data collaboratively, sequence of event of pictures from Internet resources on interactive boards, digital book, alphabet and number books with original digital pictures)	PO 1. Participate in a cooperative learning project and demonstrate effective group behaviors with class established norms while using digital collaborative resources.	PO 1. Participate in a cooperative learning project and demonstrate effective group behaviors with class established norms while using digital collaborative resources.	PO 1. Participate in a collaborative learning project and demonstrate effective group behaviors with class established norms while using digital collaborative resources.	PO 1. Participate in a community of practice whose members collaborate at a distance.

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 2: Communication and Collaboration

Concept 4: Global Connections						
Cultural understanding and global awareness by engaging with learners of other cultures.						
Kindergarten	**Grade 1**	**Grade 2**	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**
		PO 1. Identify challenges and digital strategies as a class for effectively communicating with other cultures.	PO 1. Identify challenges and digital strategies as a class for effectively communicating with other cultures.	PO 1. Participate as a class in two-way communication at a distance with others of different cultures or geographic areas to gain different perspectives of topics.	PO 1. Participate as a class in two-way communication at a distance with others of different cultures or geographic areas to gain different perspectives of topics.	PO 1. Participate as a class in two-way communication at a distance with others of different cultures or geographic areas to gain different perspectives of topics.

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 2: Communication and Collaboration

Concept 1: Digital Interactions
Interact and collaborate with peers, experts, or others from around the world, employing a variety of digital environments and media.

Grade 7	Grade 8	High School
PO 1. Select and use appropriate communication tools with peer input to effectively interact with others.	PO 1. Select and use appropriate communication tools.	PO 1. Collaborate with others employing a variety of digital environments and media to effectively establish and maintain interaction.

Concept 2: Effective Communications
Communicate information and ideas effectively to multiple audiences using a variety of digital environments.

Grade 7	Grade 8	High School
PO 1. Explain and demonstrate features, conventions, voice and etiquette of interactive digital environments to communicate with the appropriate audience.	PO 1. Evaluate, identify, and use features, conventions, voice, and etiquette of interactive digital environments to communicate with the appropriate audience.	PO 1. Organize a digital environment utilizing features, conventions, voice and etiquette of social networking tools to communicate with the appropriate audience.
PO 2. Using original ideas or research, create products using digital media and processes appropriate to purpose and audience.	PO 2. Using original ideas or research, create products using digital media and processes appropriate to purpose and audience.	PO 2. Create and publish persuasive and other writing applications for communications in different digital media environments.

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 2: Communication and Collaboration

Concept 3: Digital Solutions
Cultural understanding and global awareness by engaging with learners of other cultures.

Grade 7	Grade 8	High School
PO 1. Participate in a community of practice whose members collaborate at a distance for the purpose of producing original works or solving problems.	PO 1. Participate in a community of practice whose members collaborate at a distance for the purpose of producing original works or solving problems.	PO 1. Organize a community of practice whose members collaborate at a distance for the purpose of producing original works or solving problems.

Concept 4: Global Connections
Cultural understanding and global awareness by engaging with learners of other cultures.

Grade 7	Grade 8	High School
PO 1. Independently locate and interact with teacher approved global communities.	PO 1. Independently locate and interact with teacher approved global communities.	PO 1. Engage in a global community in order to become socially aware and contribute to a broader understanding of specific global issues.

Educational Technology Standard Articulated by Grade Level

Strand 3: Research and Information Literacy

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 3: Research and Information Literacy

Concept 1: Planning						
Plan strategies to guide inquiry.						
Kindergarten	**Grade 1**	**Grade 2**	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**
PO 1. Generate ideas, questions and solutions from a teacher posed question.	PO 1. Generate ideas, questions and solutions from a teacher posed question.	PO 1. Generate ideas, questions and solutions from a teacher posed question.	PO 1. Generate ideas, questions, and or solutions through the process of brainstorming with teacher guidance.	PO 1. Generate ideas, questions, and/or solutions through the process of brainstorming with peer input and/or teacher guidance.	PO 1. Generate ideas, questions, and/or solutions through the process of brainstorming independently, with peer input, and/or teacher guidance.	PO 1. Generate a large number of ideas, questions, and/or solutions through the process of brainstorming independently, with peer input, and/or teacher guidance.
PO 2. Generate key words from a teacher posed question.	PO 2. Generate key words and synonyms from a teacher posed question.	PO 2. Generate key words and synonyms from a teacher posed question.	PO 2. Generate key words to conduct searches with teacher guidance.	PO 2. Determine key words for use in information searches which may be refined through peer or teacher guidance.	PO 2. Determine key words for use in information searches which may be refined through peer or teacher guidance.	PO 2. Determine key words and phrases, which narrow or broaden information searches through peer or teacher guidance.
PO 3. Use a secondary source selected by the teacher.	PO 3. Use a secondary source selected by the teacher.	PO 3. Select a secondary source from a list provided by the teacher.	PO 3. Select several secondary sources from a list provided by the teacher.	PO 3. Use secondary sources and select several primary sources from a list provided by the teacher.	PO 3. Use primary and secondary sources with peer input and/or teacher guidance.	PO 3. Use primary and secondary sources, emphasizing primary sources, focusing on authority of information, with peer input and/or teacher guidance.
PO 4. Explore a limited number of media sources in a group setting.	PO 4. Explore media and online sources in a group setting.	PO 4. Differentiate types of media and information sources in a group setting.	PO 4. Differentiate types of media and information sources with teacher guidance.	PO 4. Predict which information or media source will provide the desired data with teacher guidance.	PO 4. Predict which information or media source will provide the desired data with teacher guidance.	PO 4. Determine which information or media source will provide the desired data with minimal teacher guidance.

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 3: Research and Information Literacy

Concept 2: Process						
Locate, organize, analyze, evaluate, synthesize and ethically use information from a variety of sources and media.						
Kindergarten	**Grade 1**	**Grade 2**	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**
PO 1. Identify keyword search terms with teacher assistance.	PO 1. Identify keywords and at least one synonym, completing a search, with teacher assistance.	PO 1. Identify keywords and a few synonyms and use keywords to narrow or broaden a search, to complete a search, with teacher guidance.	PO 1. Use search strategies such as developing a few synonyms for search terms and narrowing or broadening a search with teacher guidance.	PO 1. Use search strategies to locate information.

(e.g., develop synonyms, narrow or broaden terms, formulate an advanced search, use more than one search engine) | PO 1. Locate and synthesize information utilizing search strategies.

(e.g., develop synonyms, narrow or broaden terms, formulate an advanced search, use more than one search engine) | PO 1. Locate and synthesize information utilizing search strategies.

(e.g., develop synonyms, narrow or broaden terms, formulate an advanced search, use more than one search engine) |
| PO 2. Recognize common navigational elements among a variety of information and media resources. | PO 2. Identify common navigational elements (e.g., back and forward, enter, etc.) among a variety of information and media resources. | PO 2. Access information from designated sources and use a provided tool to organize the information. | PO 2. Select and organize information and media from several sources including resources. | PO 2. Select and organize information and media from a variety of sources. | PO 2. Select and organize informationand media from a variety of sources. | PO 2. Select and organize information and media independently. |
| PO 3. Recognize a fact. | PO 3. Differentiate between a fact and something untrue. | PO 3. Differentiate between a fact and something untrue. | PO 3. Analyze accuracy of information with teacher assistance. | PO 3. Analyze accuracy of information and introduce the concept of information relevancy. | PO 3. Analyze accuracy of information and limit to more relevant items. | PO 3. Analyze accuracy, relevance and comprehensiveness of the information. |

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 3: Research and Information Literacy

Concept 2: Process						
Locate, organize, analyze, evaluate, synthesize and ethically use information from a variety of sources and media.						
Kindergarten	**Grade 1**	**Grade 2**	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**
PO 4. Recognize facts about a topic.	PO 4. Recognize facts and opinions about a topic.	PO 4. Differentiate facts and opinions about a topic from inaccurate information with teacher assistance.	PO 4. Differentiate between facts and opinions and inaccurate information and media with teacher assistance.	PO 4. Differentiate between fact and opinion, bias, and inaccurate information and media with teacher or peer assistance.	PO 4. Evaluate between fact and opinion, bias, and inaccurate information and media by consulting more than one source with teacher or peer assistance.	PO 4. Evaluate between fact and opinion, bias, inaccurate and misleading information and media by consulting more than one source independently or with teacher or peer guidance.
PO 5. List multiple questions to a specific topic in a large group setting.	PO 5. List multiple questions to a specific topic in a large group setting or individually.	PO 5. List additional questions to a specific research topic individually.	PO 5. Formulate additional research questions with peer input, and/or teacher guidance.	PO 5. Evaluate information and formulate additional research questions with peer input, and/or teacher guidance.	PO 5. Evaluate and analyze information and formulate additional research questions with peer input, and/or teacher guidance.	PO 5. Evaluate and analyze information to synthesize additional research questions with peer input, and/or teacher guidance.
PO 6. Describe ethical behaviors when using technology. (e.g., does not copy, alter, or delete another person's work)	PO 6. Describe ethical behaviors when using technology. (e.g., does not copy, alter, or delete another person's work, explanation and use of resource citations)	PO 6. Practice legal and ethical behaviors during research and cite resources appropriately. (e.g., does not copy, alter, or delete another person's work)	PO 6. Follow copyright laws when using text and images obtain permission to use the work of others and cite resources appropriately. (e.g., does not copy, alter, or delete another person's work)	PO 6. Follow copyright laws when using text, images, videos and/or other sources and obtain permission to use the work of others and cite resources appropriately. (e.g., does not copy, alter, or delete another person's work)	PO 6. Follow copyright laws when using text, images, videos and/or other sources. (e.g., does not copy, alter, or delete another person's work, obtain permission to use the work of others and cite resources appropriately)	PO 6. Follow copyright laws when using text, images, videos and/or other sources and obtain permission to use the work of others and cite resources appropriately. (e.g., does not copy, alter, or delete another person's work)

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 3: Research and Information Literacy

Concept 3: Select						
Evaluate and select information sources and digital tools based upon appropriateness to specific tasks.						
Kindergarten	**Grade 1**	**Grade 2**	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**
PO 1. Use a media tool selected by the teacher for a class project.	PO 1. Use media tools selected by the teacher for a class or individual project.	PO 1. Use available media tools for a class or individual project.	PO 1. Choose appropriate media tools for the task.	PO 1. Choose appropriate media tools for the task and audience.	PO 1. Evaluate and choose appropriate media tools for the task and audience with peer input, and/or teacher guidance.	PO 1. Evaluate and choose appropriate media tools for the task and audience with peer input, and/or teacher guidance.
	PO 2. Review and select relevant data and information, from provided materials and resources, appropriate to the problem or solution, with teacher guidance.	PO 2. Review and select relevant data and information, from provided materials and resources, appropriate to the problem or solution, with teacher guidance.	PO 2. Review and select relevant data and information, appropriate to the problem or solution, with peer input and teacher guidance.	PO 2. Review and select relevant data and information, appropriate to the problem or solution, with peer input and teacher guidance.	PO 2. Review and select relevant data and information appropriate to the problem or solution, with peer input and teacher guidance.	PO 2. Review and select relevant data and information appropriate to the problem or solution, with peer input and teacher guidance.

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 3: Research and Information Literacy

Concept 4: Product						
Processing data to communicate results.						
Kindergarten	**Grade 1**	**Grade 2**	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**
PO 1. Sort information into major topics selected by the teacher.	PO 1. Sort information into major topics with teacher guidance.	PO 1. Sort information into major topics and create a list of original ideas as a class.	PO 1. Sort information into major topics and create a list of original ideas with peer input and teacher guidance.	PO 1. Use appropriate digital tools to synthesize research information and develop new ideas with teacher guidance. (e.g., Inspiration, Kidspiration, Word, Publisher, Excel, browser-based application, etc.)	PO 1. Use appropriate digital tools to synthesize research information and develop new ideas with peer input and teacher guidance. (e.g., Inspiration, Kidspiration, Word, Publisher, Excel, browser-based application, etc.)	PO 1. Use appropriate digital tools to synthesize research information to create new understanding with peer input and teacher guidance.
PO 2. Communicate new understanding by creating a digital product with teacher guidance.	PO 2. Communicate new understanding by creating a digital product for a specific audience with teacher guidance.	PO 2. Communicate new understanding by creating a digital product, utilizing at least 2 methods of delivery, appropriate for a specific audience, with teacher guidance.	PO 2. Communicate new understanding by creating a digital product, utilizing at least 2 methods of delivery, appropriate for a specific audience, with teacher guidance.	PO 2. Communicate new understanding by creating a digital product, utilizing several methods of delivery, appropriate for a specific audience, with peer input and teacher guidance.	PO 2. Communicate new understanding by creating a digital product, utilizing several methods of delivery, appropriate for a specific audience, with peer input and teacher guidance.	PO 2. Communicate new understanding by creating a digital product, utilizing several methods of delivery, appropriate for the audience, with peer input and teacher guidance.

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 3: Research and Information Literacy

Concept 1: Planning		
Plan strategies to guide inquiry.		

Grade 7	Grade 8	High School
PO 1. Generate a large number of ideas, questions, and or solutions through the process of brainstorming independently with minimal supervision.	PO 1. Generate a large number of thoughtful and creative ideas, questions, and or solutions through the process of brainstorming independently.	PO 1. Originate topic of study and formulate thoughtful and creative ideas, questions, and/or solutions for a real-world task.
PO 2. Determine most effective keywords and phrases for use in information searches through peer or teacher guidance.	PO 2. Determine the most effective keywords and phrases for use in information searches, independently.	PO 2. Identify and defend effective key words, phrases and strategies for sue in information searches.
PO 3. Use primary and secondary sources, emphasizing primary sources, focusing on authority of information, with peer input and/or teacher guidance.	PO 3. Use authoritative sources and independently evaluate and select primary and secondary sources, emphasizing primary sources, focusing on authority of information.	PO 3. Evaluate and select authoritative primary and secondary sources, emphasizing primary sources, focusing on authority of information.
PO 4. Determine which information or media source will provide the desired data with minimal teacher guidance.	PO 4. Determine, independently, which information or media source will provide the desired data.	PO 4. Identify and defend which information or media source will provide the desired data.

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 3: Research and Information Literacy

Concept 2: Process
Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.

Grade 7	Grade 8	High School
PO 1. Locate and synthesize information utilizing search strategies.	PO 1. Locate and synthesize information utilizing search strategies.	PO 1. Locate and synthesize information utilizing advanced search strategies using a variety of search engines including meta data search engines, conduction deep web searches.
(e.g.,. develop synonyms, narrow or broaden terms, formulate an advanced search, use more than one search engine, and deep web)	(e.g., develop synonyms, narrow or broaden terms, formulate an advanced search, use more than one search engine, file type, relevancy, deep web)	(e.g., Boolean, relevancy, recency, file type, authority, and comprehension)
PO 2. Select and organize information and media independently.	PO 2. Select and organize information and media independently.	PO 2. Select and organize information and media independently.
PO 3. Analyze accuracy, relevance and comprehensiveness of information and media.	PO 3. Analyze accuracy, relevance and comprehensiveness of information and media in context.	PO 3. Evaluate and analyze information to synthesize additional research questions.

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 3: Research and Information Literacy

Concept 2: Process		
Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.		
Grade 7	**Grade 8**	**High School**
PO 4. Evaluate between fact and opinion, bias, inaccurate and misleading information and media by consulting more than one source independently or with teacher or peer guidance.	PO 4. Evaluate independently between fact and opinion, bias, inaccurate and misleading information and media by consulting multiple sources.	PO 4. Apply ethical use of information and media by respecting the principles of intellectual freedom and intellectual property rights, and using information and media technology responsibly, including citing resource citations.
PO 5. Evaluate and analyze information to synthesize additional research questions with minimal teacher guidance.	PO 5. Evaluate and analyze information to synthesize additional research questions independently.	PO 5. Evaluate and analyze information to synthesize additional research questions independently.
PO 6. Apply ethical use of information and media by respecting the intellectual property rights, and using information and media technology responsibly and cite resources appropriately. (e.g., does not copy, alter, or delete another person's work)	PO 6. Apply ethical use of information and media by respecting the principles of intellectual freedom and intellectual property rights, and using information and media technology responsibly and cite resources appropriately. (e.g., does not copy, alter, or delete another person's work)	PO 6. Apply ethical use of information and media by respecting the principles of intellectual freedom and intellectual property rights, and using information and media technology responsibly and cite resources appropriately.

Concept 3: **Select**		
Evaluate and select information sources and digital tools based on appropriateness to specific tasks.		
Grade 7	**Grade 8**	**High School**
PO 1. Evaluate and choose appropriate media tools for the task and audience with minimal teacher guidance.	PO 1. Evaluate and choose appropriate media tools for the task and audience independently.	PO 1. Evaluate and choose appropriate media rich digital tools for the task and audience independently.
PO 2. Review and select relevant data and information appropriate to the problem or solution, with peer input and minimal teacher guidance.	PO 2. Review and select relevant data and information appropriate to the problem or question.	PO 2. Analyze and evaluate relevant data and information appropriate to the real-world problem or question.

Concept 4: **Product**		
Processing data to communicate results.		
Grade 7	**Grade 8**	**High School**
PO 1. Synthesize research information to create new understanding with peer input and minimal teacher guidance.	PO 1. Synthesize research information to create new understanding.	PO 1. Synthesize research information to create new understanding and innovative solutions.
PO 2. Synthesize research information to create new understanding with peer input and minimal teacher guidance.	PO 2. Synthesize research information to create new understanding.	PO 2. Communicate a new understanding by creating media-rich digital products appropriate for the audience and purpose.

Educational Technology Standard Articulated by Grade Level
Strand 4: Critical Thinking, Problem Solving and Decision Making

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 4: Critical thinking, Problem Solving, Decision Making

Concept 1: Investigation
Identify and define authentic problems and significant questions for investigation.

Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
PO 1. Collaborate as a class to identify and define essential questions using digital tools and resources.	PO 1. Collaborate as a class to select an essential question to research a question using digital resources. (e.g., investigating recycling on campus using cameras, response pads, using excel with pictographs)	PO 1. Collaborate as a class to select an essential question to research a question using digital resources. (e.g., environmental, investigating recycling on campus using cameras, response pads, using excel with pictographs)	PO 1. Experiment, explore and try out new ideas without fear of failure to generate original ideas, products or projects. (e.g., environmental, investigating recycling on campus using cameras, response pads, using excel with pictographs)	PO 1. Experiment, explore and try out new ideas without fear of failure to generate original ideas, products or projects. (e.g. investigating recycling on campus using cameras, response pads, using excel with pictographs)	PO 1. Experiment, explore and try out new ideas without fear of failure to generate original ideas, products or projects. (e.g., digital microscopes, probes, web resources, podcasts, WebQuests)	PO 1. Experiment, explore and try out new ideas without fear of failure to generate original ideas, products or projects. (e.g., digital microscopes, probes, web resources, podcasts, WebQuests)

Concept 2: Data Collection and analysis
Collect and analyze data from different perspectives.

Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
PO 1. Participate in class learning project using digital tools identified by the teacher to answer a question. (e.g., using simulations and graphic organizers, data analysis tools, mind mapping, concept mapping and spreadsheets)	PO 1. Participate in group learning projects using digital planning tools with teacher support to answer a question. (e.g. using simulations and graphic organizers, data analysis tools, mind mapping, concept mapping and spreadsheets)	PO 1. Participate in group learning projects using digital planning tools with teacher support to answer a question. (e.g., using simulations and graphic organizers, data analysis tools, mind mapping, concept mapping and spreadsheets)	PO 1. Participate in group learning projects using digital planning tools with teacher support to answer a question. (e.g., using simulations and graphic organizers, data analysis tools, mind mapping, concept mapping and spreadsheets)	PO 1. Conceptualize, plan and manage individual or group learning projects using digital planning tools with teacher support to develop solutions to answer a question. (e.g., using simulations and graphic organizers, data analysis tools, mind mapping, concept mapping and spreadsheets)	PO 1. Conceptualize, plan and manage individual or group learning projects using digital planning tools with teacher support to develop solutions to answer a question. (e.g., using simulations and graphic organizers, data analysis tools, mind mapping, concept mapping and spreadsheets)	PO 1. Plan, conduct and manage research using valid and independently selected digital resources to develop solutions to answer a question. (e.g., using simulations and graphic organizers, data analysis tools, mind mapping, concept mapping and spreadsheets)

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 4: Critical thinking, Problem Solving, Decision Making

Concept 3: Data and Analysis						
Collect and analyze data from different perspectives.						
Kindergarten	**Grade 1**	**Grade 2**	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**
PO 1. Participate with their class to use digital tools to collect and analyze data on a predefined question.	PO 1. Participate with their class to use digital tools to collect and analyze data on a predefined question.	PO 1. Use digital tools to collaboratively collect and analyze data on a predefined question.	PO 1. Use digital tools to independently collect and analyze data on a predefined question.	PO 1. Use digital tools to independently collect and analyze data on a question.	PO 1. Use digital tools to independently collect and analyze data on a question.	PO 1. Use digital tools to independently collect and analyze data on a question.

Concept 4: Use Multiple and Diverse Perspectives						
Using more than one process and person's point of view to explore solutions.						
Kindergarten	**Grade 1**	**Grade 2**	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**
PO 1 Discuss data collected on a predefined question to explore solutions or results as a class. (e.g., using probes, spreadsheets, internet or software resources, digital cameras, GPS, Foldable, simulation tools, gaming tools, web pages, webquests, graphic organizers, etc)	PO 1. Discuss data collected on a predefined question to propose developmentally appropriate solutions. (e.g., using probes, spreadsheets, internet or software resources, digital cameras, GPS, Foldables, simulation tools, gaming tools, web pages, webquests, graphic organizers, etc)	PO 1. Use resources and data collected on a predefined question to generate developmentally appropriate solutions. (e.g., using probes, spreadsheets, internet or software resources, digital cameras, GPS, Foldables, simulation tools, gaming tools, web pages, webquests, graphic organizers, etc)	PO 1. Use resources and data collected on a predefined question to generate solutions. (e.g., using probes, spreadsheets, internet or software resources, digital cameras, GPS, Foldables, simulation tools, gaming tools, web pages, webquests, graphic organizers, etc)	PO 1. Use resources and data collected on a predefined question to generate solutions. (e.g., using probes, spreadsheets, internet or software resources, digital cameras, GPS, Foldables, simulation tools, gaming tools, web pages, webquests, graphic organizers, etc)	PO 1. Use resources and data collected on a predefined question to generate solutions. (e.g., using probes, spreadsheets, internet or software resources, digital cameras, GPS, Foldables, simulation tools, gaming tools, web pages, webquests, graphic organizers, etc)	PO 1. Use resources and data collected on a predefined question to generate solutions. (e.g., using probes, spreadsheets, internet or software resources, digital cameras, GPS, Foldables, simulation tools, gaming tools, web pages, webquests, graphic organizers, etc)

Concept 1: Investigation
Identify and define authentic problems and significant questions for investigations.

Grade 7	Grade 8	High School
PO 1. Write essential questions to investigate an question independently using digital tools and resources. (e.g., environmental, political, scientific, and/or social questions, such as: health, bullying immigration, peer interaction)	PO 1. Write essential questions to investigate a global question independently using digital tools and resources. (e.g., environmental, political, scientific, and/or social questions, such as: health, bullying immigration, peer interaction)	PO 1.Write essential questions to investigate a complex question independently using digital tools and resources.. (e.g., environmental, political, scientific, and/or social questions, such as: health, bullying immigration, peer interaction)

Concept 2: Project Management
Plan and manage activities to develop a solution to answer a question or complete a project.

Grade 7	Grade 8	High School
PO 1. Plan, conduct and manage research using appropriate and independently selected digital resources to develop solutions to answer a question. (e.g., using simulations and graphic organizers, data analysis tools, mind mapping, concept mapping and spreadsheets)	PO 1. Use an action plan and timeline to conduct and manage research using appropriate and independently selected digital resources to develop solutions to answer a question. (e.g. using simulations and graphic organizers, data analysis tools, mind mapping, concept mapping and spreadsheets)	PO 1. Plan and manage research using appropriate and independently selected digital resources to develop solutions to answer a question. (e.g., using simulations and graphic organizers, data analysis tools, mind mapping, concept mapping and spreadsheets)

Concept 3: Data Collection and Analysis		
Collect and analyze data from different perspectives.		
Grade 7	**Grade 8**	**High School**
PO 1. Use digital tools to independently collect and analyze data on an question.	PO 1. Use digital tools to independently collect and analyze data.	PO 1. Collect and analyze data from differing perspectives using appropriate digital tools.

Concept 4: Exploring Solutions		
Use multiple processes and diverse perspectives to explore alternative solutions.		
Grade 7	**Grade 8**	**High School**
PO 1. Use resources and data collected on a predefined question to generate solutions. (e.g., using probes, spreadsheets, internet or software resources, digital cameras, GPS, Foldables, simulation tools, gaming tools, web pages, WebQuests, graphic organizers, wiki, collaborative tools, video conference, Web 2.0 tools, etc.)	PO 1. Use resources and data collected, to propose and prioritize solutions and make decisions. (e.g., current events, podcasts, class wiki, collaborative tools, video conference, Web 2.0 tools, etc.)	PO 1. Use resources and data collected, to present innovative, sustainable solutions and make decisions from multiple perspectives.

Educational Technology Standard Articulated by Grade Level
Strand 5: Digital Citizenship

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 5: Digital Citizenship

Concept 1: Safety and Ethics						
Advocate and practice safe, legal, and responsible use of information and technology.						
Kindergarten	**Grade 1**	**Grade 2**	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**
PO 1. Recognize and discuss when it is appropriate and not appropriate to use a personal digital device.	PO 1. Recognize and discuss when it is appropriate and not appropriate to use a personal digital device.	PO 1. Recognize and discuss when it is appropriate and not appropriate to use a personal digital device.	PO 1. Explain when it is appropriate and not appropriate to use a personal digital device.	PO 1. Explain when it is appropriate and not appropriate to use a personal digital device.	PO 1. Analyze the consequences of inappropriate use of a personal digital device.	PO 1. Identify situations in which it is appropriate to use a personal digital device in the home, at school, community, and in the workforce.
	PO 2. Define cyber-bullying.	PO 2. Describe cyber-bullying and discuss the effect bullying has on the individual.	PO 2. Identify cyber-bullying and describe age appropriate strategies to deal with such a situation.	PO 2. Identify cyber-bullying and describe age appropriate strategies to deal with such a situation.	PO 2. Identify cyber-bullying and describe age appropriate strategies to deal with such a situation.	PO 2. Identify cyber-bullying and describe age appropriate strategies to deal with such a situation.
PO 3. Identify and articulate class rules for the use of digital tools.	PO 3. Identify and articulate rules in age appropriate ways for the use of digital tools as defined by the school board policies and procedures.	PO 3. Identify and articulate rules in age appropriate ways for the use of digital tools as defined by the school board policies and procedures.	PO 3. Identify and articulate rules in age appropriate ways for the use of digital tools as defined by the school board policies and procedures.	PO 3. Identify and articulate rules in age appropriate ways for the use of digital tools as defined by the school board policies and procedures.	PO 3. Identify and articulate rules in age appropriate ways for the use of digital tools as defined by the school board policies and procedures.	PO 3. Identify and articulate rules in age appropriate ways for the use of digital tools as defined by the school board policies and procedures.
	PO 4. Discuss why it may be dangerous to visit certain Internet sites.	PO 4. Identify and discuss ways to stay safe on the Internet.	PO 4. Discuss why it is important not to provide personal information in online communication.	PO 4. Recognize and describe the potential risks and dangers associated with various forms of online communications.	PO 4. Recognize and describe the potential risks and dangers associated with various forms of online communications.	PO 4. Identify and articulate strategies to protect personal information.

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 5: Digital Citizenship

Concept 1: Safety and Ethics						
Advocate and practice safe, legal, and responsible use of information and technology.						
Kindergarten	**Grade 1**	**Grade 2**	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**
				PO 5. Explain how the Internet can be used when making a personal spending choice.	PO 5. Explain the advantages and disadvantages of using the Internet to complete an online purchase.	PO 5. Locate sources of online information that can be used to evaluate the quality and cost for a particular product to explain a personal purchase.
PO 6. Recognize and discuss why there are rules for using technology at home and at school.	PO 6. Recognize, discuss, and demonstrate appropriate behavior for technology use and show respect for technology equipment.	PO 6. Discuss and demonstrate appropriate behavior for technology use and show respect for technology equipment	PO 6. Explain the importance of respecting the privacy of others' information and digital workspace.	PO 6. Respect the privacy of others' information and digital workspace.	PO 6. Exhibit legal and ethical behavior when using technology and discuss the consequences of misuse.	PO 6. Exhibit legal and ethical behavior when using technology and discuss consequences of misuse.

Concept 2: Leadership for Digital Citizenship						
Demonstrates leadership for digital citizenship.						
Kindergarten	**Grade 1**	**Grade 2**	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**
PO 1. Exhibit leadership through the appropriate use of digital tools	PO 1. Model leadership skills by working productively in groups.	PO 1. Model leadership skills by working productively in groups.	PO 1. Independently conceptualize, guide and manage group projects using content specific resources.	PO 1. Independently conceptualize, guide and manage group projects using content specific resources.	PO 1. Independently conceptualize, guide and manage group projects using content specific resources.	PO 1. Identify technology resources that can be used to foster global leadership and life-long learning.

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 5: Digital Citizenship

Concept 3: Impact of Technology Develop an understanding of cultural, historical, economic and political impact of technology on individuals and society.						
Kindergarten	**Grade 1**	**Grade 2**	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**
PO 1. Recognize and discuss examples of technology that they use in their daily lives.	PO 1. Recognize and discuss how they and their family use technology to make their lives better (e.g., food, clothing, health, well being, protection)	PO 1. Recognize, discuss, and explain different types of technologies used by current and past peoples	PO 1. Compare how different cultures currently and in the past used technology to improve their lives.	PO 1. Give examples of technologies that might be used to solve a specific economic, environmental, health, political, scientific, or social problem.	PO 1. Compare the use of different technologies by current or past societies and Infer the values of that society from their technology use and the impact on the environment.	PO 1. Research a current technology and describe its potential use to solve an economic, environmental, health, political, scientific, or social problem.

Concept 1: Safety and Ethics		
Advocate and practice safe, legal, and responsible use of information and technology.		

Grade 7	Grade 8	High School
PO 1. Explain the situations in which it is appropriate to use a personal digital device in the home, at school, community, and in the workforce.	PO 1. Explain the situations in which it is appropriate to use a personal digital device in the home, at school, community, and in the workforce.	PO 1. Communicate and collaborate safely using multiple digital communication tools.
PO 2. Identify cyber-bullying and describe age appropriate strategies to deal with such a situation.	PO 2. Identify cyber-bullying and describe age appropriate strategies to deal with such a situation.	PO 2. Identify cyber-bullying and describe age appropriate strategies to deal with such a situation.
PO 3. Identify and articulate rules in age appropriate ways for the use of digital tools as defined by the School Board Policies and Procedures.	PO 3.Identify and articulate rules in age appropriate ways for the use of digital tools as defined by the School Board Policies and Procedures.	PO 3. Identify, articulate, and recommend rules for the use of digital tools to the School Board.
PO 4. Demonstrate safe online communication practices regarding personal information.	PO 4. Demonstrate safe online communication practices regarding personal information.	PO 4. Demonstrate safe online communication practices regarding personal information.
PO 5. Organize, plan, and construct a personal budget using appropriate digital tools.	PO 5. Analyze and compare various forms of online financial options.	PO 5. Analyze how web advertising influences consumer choices.
PO 6. Exhibit legal and ethical behavior when using technology.	PO 6. Exhibit legal and ethical behavior when using technology.	PO 6. Exhibit legal and ethical behavior when using technology.

Concept 2: Leadership for Digital Citizenship		
Demonstrates leadership for digital citizenship.		
Grade 7	**Grade 8**	**High School**
PO 1. Identify technology resources that can be used to foster global leadership and life-long learning.	PO 1. Identify technology resources that can be used to foster global leadership and life-long learning.	PO 1. Lead a team to develop a plan to solve a local, regional, or global problem using technological resources.

Concept 3: Impact of Technology		
Develop an understanding of cultural, historical, economic and political impact of technology on individuals and society.		
Grade 7	**Grade 8**	**High School**
PO 1. Analyze the potential benefits and hazards of a new technology and summarize the possible short- and long-term consequences of implementing this technology.	PO 1. Identify a current economic, environmental, health, political scientific, or social problem that may have a technological solution and propose potential solutions for the problem	PO 1. Implement a solution for a current economic, environmental, health, political, scientific, or social problem that may have a technological solution that includes a discussion of the political, ethical, and moral issues of using the technology and methods for determining the project's success.

Educational Technology Standard Articulated by Grade Level
Strand 6: Technology Operations and Concepts

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 6: Technology Operations and Concepts

Concept 1: Understanding						
Recognize, define and use technology processes, systems and applications.						
Kindergarten	**Grade 1**	**Grade 2**	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**
PO 1. Identify basic technology terminology. (e.g., mouse, keyboard, monitor, CD drive, printer, interactive whiteboard, scanner, digital camera, wireless slate, keypad)	PO 1. Define basic technology terminology. (e.g., mouse, keyboard, monitor, CD drive, printer, interactive whiteboard, scanner, digital camera, wireless slate, keypad)	PO 1. Classify basic technology terminology. (e.g., mouse, keyboard, monitor, CD drive, printer, interactive whiteboard, scanner, digital camera, wireless slate, keypad)	PO 1. Define and label various technical system terms. (e.g., hard drive, processor (CPU), RAM/ROM)	PO 1. Describe the various technical system terms. (e.g., hard drive, processor (CPU), RAM/ROM)	PO 1. Describe the interaction of hardware, software and peripherals in relation to their function and purpose	PO 1. Define and correctly use terms related to networks. (e.g., LANs, WANs, servers, and Internet connectivity)
PO 2. Identify technology process terminology. (e.g., on/off, shut down/log off, type, click & drag, login/out, delete)	PO 2. Define technology process terminology. (e.g., on/off, shut down/log off, type, click & drag, login/out, delete, edit, cut-copy paste, undo-redo, new-open-save, search)	PO 2. Apply knowledge of technology process terminology. (e.g., on/off, shut down/log off, type, click & drag, login/out, delete, edit, cut-copy paste, undo-redo, new-open-save, search)	PO 2. Define and apply knowledge of various technical process terms. (e.g., resize, minimize, toggle windows, zoom in/out, print/preview, boot, reboot, restart, launch, highlight, select, user ID, password, desktop, icon, folder, control-alt-delete)	PO 2. Define and apply knowledge of various technical process terms. (e.g., sort, filter, tab, indent, alignment, font size, insert object, import/export)	PO 2. Define and apply knowledge of various technical process terms. (e.g., edit, execute, enlarge/reduce, scale, format, insert, select)	PO 2. Define and apply knowledge of various technical process terms. (e.g., rotate, crop/trim, layer, arrange)
PO 3. Identify technology application terminology for a given activity/project.	PO 3. Choose Technology applications for a given activity/project.	PO 3. Identify technology applications for a given activity/project.	PO 3. Choose technology applications for a given activity/project.	PO 3. Choose technology applications for a given activity/project.	PO 3. Choose technology applications for a given activity/project.	PO 3. Choose technology applications appropriate for the audience and task.

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 6: Technology Operations and Concepts

Concept 1: Understanding						
Recognize, define and use technology processes, systems and applications.						
Kindergarten	**Grade 1**	**Grade 2**	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**
PO 4. Demonstrate knowledge of ergonomics and electrical safety when using computers.	PO 4. Demonstrate knowledge of ergonomics and electrical safety when using computers.	PO 4. Demonstrate knowledge of ergonomics and electrical safety when using computers.	PO 4. Demonstrate knowledge of ergonomics and electrical safety when using computers. (e.g., demonstrate the ability to sit properly and adjust their screen for optimum viewing)	PO 4. Demonstrate knowledge of ergonomics and electrical safety when using computers. (e.g., demonstrate the ability to sit properly and adjust screen for optimum viewing)	PO 4. Recognize and demonstrate ergonomically sound and safe use of equipment. (e.g., Internet addiction, carpal tunnel syndrome, ergonomic impact, identify physical dangers of using digital technology)	PO 4. Recognize and demonstrate ergonomically sound and safe use of equipment. (e.g., Internet addiction, carpal tunnel syndrome, ergonomic impact, research exercises to avoid repetitive stress syndrome and model them to teachers and friends, discuss physical dangers of using digital technology)

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 6: Technology Operations and Concepts

Concept 2: Application
Select and use application effective and productively.

Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
PO 1. Use the mouse/track pad to perform computer functions such as accessing an application, indicating a choice or activating a link. Use to keyboard to type letters and numbers and know how to use special key functions. (e.g., delete, space, return/enter and shift)	PO 1. Understand keyboarding techniques when we use the keyboard to type letters, numbers and special key functions. (e.g., delete, space, return/enter and shift)	PO 1. Demonstrate speed and accuracy in use of keyboard and data entry tools with at least 10 wpm and 60% accuracy.	PO 1. Demonstrate speed and accuracy in use of keyboard and data entry tools with at least 10 wpm and 80% accuracy.	PO 1. Demonstrate speed and accuracy in use of keyboard and data entry tools with at least 20 wpm and 75% accuracy.	PO 1. Demonstrate speed and accuracy in use of keyboard and data entry tools with at least 20 wpm and 90% accuracy.	PO 1. Demonstrate speed and accuracy in use of keyboard and data entry tools with at least 30 wpm and 80% accuracy.
PO 2. Use a word processing program to write and print simple assignments.	PO 2. Use a word processing program to write, save and print simple assignments.	PO 2. Use a word processing program to write, edit, print, name and save simple assignments.	PO 2. Use menu and tool bar functions in a word processing program to format, edit, and print a document. (e.g., font size/style, line spacing, margins, and insert image)	PO 2. Use menu and tool bar functions in a word processing program to outline, proofread and edit writing using copy, cut paste along with dictionary, spell-check and grammar resources while using the program to complete a given task.	PO 2. Demonstrate use of intermediate features in word processing applications to complete a given task. (e.g., tabs, indents, headers and footers, end notes, bullets and numbering, tables, text wrapping, highlight text, cut/paste/copy)	PO 2. Apply advanced formatting and page layout features when appropriate (e.g., columns, templates, and styles) to improve the appearance of documents and materials and to complete a given task.

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 6: Technology Operations and Concepts

Concept 2: Application						
Select and use application effective and productively.						
Kindergarten	**Grade 1**	**Grade 2**	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**
		PO 3. Use spreadsheets to organize and sort data in the most appropriate manner so that it can be searched using a simple computer graphic application to display data.	PO 3. Identify and explain terms and concepts related to spreadsheets while using program to complete a given task (e.g., cell, column, reposition columns and rows, add and name worksheets row, values, labels, chart, and graph)	PO 3. Demonstrate an understanding a spreadsheet application while using program to complete a given task to record, organize, and graph information.	PO 3. Apply formatting skills when necessary while using program to complete a given task. (e.g., text alignment, text wrapping, merging text, text orientation)	PO 3. Produce simple charts and graphs from the data of a given or student created spreadsheet to distinguish among different types of charts and graphs, and choose the most appropriate type to represent given data. (e.g., use multiple sheets within a workbook, and create links among worksheets)
		PO 4. Explain that computers can store and organize information so that it can be searched.	PO 4. Define the term "database" and provide examples from everyday life. (e.g., library catalogs, school records, telephone directories)	PO 4. Perform simple searches of existing databases. (e.g., online library catalog, electronic encyclopedia)	PO 4. Define terms related to databases, such as "record," "field," and "search." Perform searches of existing databases. (e.g., online library catalog, electronic encyclopedia)	PO 4. Perform simple operations in a database. (e.g., browse, sort, search on selected criteria, delete data, enter data).

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 6: Technology Operations and Concepts

Concept 2: Application						
Select and use application effective and productively.						

Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
PO 5. Use an interactive presentation system as part of the classroom work.	PO 5. Use multimedia presentation programs to create simple class assignments.	PO 5. Create multimedia presentations with multiple pages, audio, transitions for individual assignments	PO 5. Use computer-input devices to capture and integrate images into multimedia presentation. (e.g., digital camera, scanner, CD-ROM, Internet)	PO 5. Demonstrate an understanding of the purpose for a multimedia presentation (e.g., inform, persuade, entertain)	PO 5. Create and edit work using painting/drawing applications. (e.g., create a series of slides and organize them to present research or convey an idea)	PO 5. Plan, create, and edit multimedia products. (e.g., audio, slide presentations, videos, animations, simulations, charts and graphs podcasts)
PO 6. Demonstrate the ability to access the internet and use age appropriate interactive websites.	PO 6. Demonstrate the ability to access the internet and use age appropriate interactive websites.	PO 6. Gather and organize information from the internet using teacher directed key word searches.	PO 6. Gather and organize information from the internet using teacher directed key word searches and URL addresses.	PO 6. Gather and organize information from the internet using student directed key word searches and URL addresses	PO 6. Prepare and Publish information from the internet using teacher directed content.	PO 6. Create internet content from teacher directed project. (e.g., webpage, blog, wiki, podcast)

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 6: Technology Operations and Concepts

Concept 3: Troubleshoot Systems and Processes	
Students will be able to define problems and investigates solutions in systems and processes.	

Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
PO 1. With the guidance of the teacher, students understand that there are different types of problems with technology and they can help identify the type of problem and the steps needed to solve.	PO 1. With the guidance of the teacher, students devise a plan on how to solve different types of technology problems	PO 1. Apply strategies for identifying and solving routine hardware and software problems that occur during everyday use.	PO 1. Identify successful troubleshooting strategies for minor hardware and software issues/ problems. (e.g., "frozen screen")	PO 1. Demonstrate successful troubleshooting strategies for minor hardware and software issues/ problems. (e.g., "frozen screen")	PO 1. Investigate solutions using the help function within software and hardware to troubleshoot issues and problems.	PO 1. Use the help function within software and hardware to troubleshoot issues and problems.

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 6: Technology Operations and Concepts

Concept 4: Transfer of Knowledge						
The ability to transfer current knowledge to learning of new technologies.						
Kindergarten	**Grade 1**	**Grade 2**	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**
PO 1. Transfer knowledge of technology used at home to technology that will be used at school. (e.g., input devices such as keypads, controllers, stylus, mouse, etc.)	PO 1. Acquire and use prior knowledge of input devices to understand computers.	PO 1. Compare and contrast input devices to understand their different functions.	PO 1. Identify and choose appropriate input devices based on prior knowledge.	PO 1. Identify and choose appropriate input devices based on prior knowledge.	PO 1. Identify and choose appropriate input devices for a given task.	PO 1. Organize input devices used in various content areas to show the relationship between one application and another. (e.g., audio, composite, imaging, 2D & 3D pointing devices, MIDI, joystick, scanner)
PO 2. Transfer knowledge of universal symbols that are used at home to universal symbols that will be used at school.	PO 2. Recognize symbols and icons used to identify common functions in the use of technology	PO 2. Recognize types of files by their icons. Identify and use functions represented by symbols and computer icons commonly found in applications.	PO 2. Identify types of files by their computer icons and extensions.	PO 2. Identify types of files by their computer icons and extensions.	PO 2. Create icons to represent functions.	PO 2. Locate files by extension type using the search feature of the computer.

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 6: Technology Operations and Concepts

Concept 1: Understanding		
Recognize, define and use technology processes, systems, and applications.		
Grade 7	**Grade 8**	**High School**
PO 1. Explain and correctly use terms related to networks (such as: LANs, WANs, servers, and routers) and Internet connectivity.	PO 1. Construct a model or diagram showing how systems are integrated detailing input, output, and network devices.	PO 1. Utilize appropriate terminology in describing how the components of a system are integrated (e.g., PCI, OS, Drivers, jumpers, BIOS, Cache).
PO 2. Define and apply knowledge of various technical process terms, such as: functions, advance search with filters.	PO 2. Define and apply knowledge of various advanced technical process terms.	PO 2. Define and apply knowledge of various advanced technical process terms.
PO. 3 Choose technology applications appropriate for the audience and task.	PO 3. Choose technology applications appropriate for the audience and task.	PO 3. Choose technology applications appropriate for the audience and task.
PO 4. Recognize and demonstrate ergonomically sound and safe use of equipment. Analyze physical dangers of using digital technology (e.g., Internet addiction, carpal tunnel syndrome, ergonomic impact).	PO 4. Recognize and demonstrate ergonomically sound and safe use of equipment Analyze and evaluate physical dangers of using digital technology (e.g., Internet addiction, carpal tunnel syndrome, ergonomic impact).	PO 4. Recognize and demonstrate ergonomically sound and safe use of equipment. Analyze and evaluate physical dangers of using digital technology (e.g., Internet addiction, carpal tunnel syndrome, ergonomic impact).

Concept 2: Applications Select and use applications effectively and productively.		
Grade 7	**Grade 8**	**High School**
PO 1. Demonstrate speed and accuracy in use of keyboard and data entry tools with at least 30 wpm and 90% accuracy.	PO 1. Demonstrate speed and accuracy in use of keyboard and data entry tools with at least 40 wpm and 80% accuracy.	PO 1. Demonstrate speed and accuracy in use of keyboard and data entry tools with at least 50 wpm and 90% accuracy.
PO 2. Demonstrate use of intermediate features in word processing applications (e.g. tabs, indents, headers and footers, end notes, bullets and numbering, tables, text wrapping, highlight text, cut/paste/copy).	PO 2. Demonstrate use of intermediate features in word processing applications (e.g. tabs, indents, headers and footers, end notes, bullets and numbering, tables, text wrapping, highlight text, cut/paste/copy)	PO 2. Judge advanced formatting and page layout features where appropriate (e.g., columns, Table of Contents, templates, and styles) to improve the appearance of documents and materials.
PO 3. Enter/edit data using formulas while using spreadsheet to complete a given task and perform calculations using simple formulas (+, -, *, /)	PO 3. Apply advanced formatting features such as: sort, filter, formulas, functions and find, while using spreadsheet programs to complete a given task to customize tables, charts, and graphs.	PO 3. Apply the use of spreadsheets to calculate, graph, organize, and present data in a variety of real-world settings.

Educational Technology Standard Articulated by Grade Level-DRAFT
Strand 6: Technology Operations and Concepts

Concept 2: Applications		
Select and use applications effectively and productively.		
Grade 7	**Grade 8**	**High School**
PO 4. Perform simple operations in a database (browse, sort, filter, search on selected criteria, delete data, enter data).	PO 4. Use database features to create a simple database for a content area.	PO 4. Use database features to create mailing labels, form letters, and perform mail merges.
PO 5. Present content in an interactive format in support of a core content area.	PO 5. Create and edit visual and audio material to generate a stand-alone multimedia product	PO 5. Compose streaming media for the web with a web 2.0 environment.
PO 6. Create internet content (such as webpage, blog, wiki, podcast) from student directed project.	PO 6. Create and publish internet content (such as webpage, blog, wiki, podcast) from student directed project.	PO 6. Evaluate and critique student directed web content using surveys and content analysis

Concept 3: Problem Solving
Troubleshooting systems using problem solving.

Grade 7	Grade 8	High School
PO 1. Investigate solutions on-line to troubleshoot hardware and software issues and problems.	PO 1. Use solutions on-line to troubleshoot hardware and software issues and problems.	PO 1. Identify and use online help and other support to learn about features of hardware, software, and connectivity as well asto assess and resolve problems.

Concept 4: Transfer of Knowledge
Transfer current knowledge to learning of new technologies.

Grade 7	Grade 8	High School
PO 1. Combine the use of input devices to achieve a given task	PO 1. Recommend and evaluate input devices for a specific task	PO 1. Identify and assess the capabilities and limitations of input technologies.
PO 2. Locate files by extension type using the advanced search features of the computer.	PO 2. Convert files from one file type to another	PO 2. Apply symbology related to a specific field of study.